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NASA Masters Forum

May 13, 2010

Lessons Learned in Building the Ares Projects



Agenda

- ◆ **Rebuilding In-house Capabilities from the Apollo Era**
- ◆ **NASA Vehicle Integration Activities**
- ◆ **Making the Agency a “Smart Buyer”**
- ◆ **Anticipating Problems**
- ◆ **Knowledge Management / Capture**
- ◆ **Lean Six Sigma**
- ◆ **Design, Development, Processing, Flying, and Controlling New Launch Vehicles**
- ◆ **Q & A**



Rebuilding In-house Capabilities from the Apollo Era



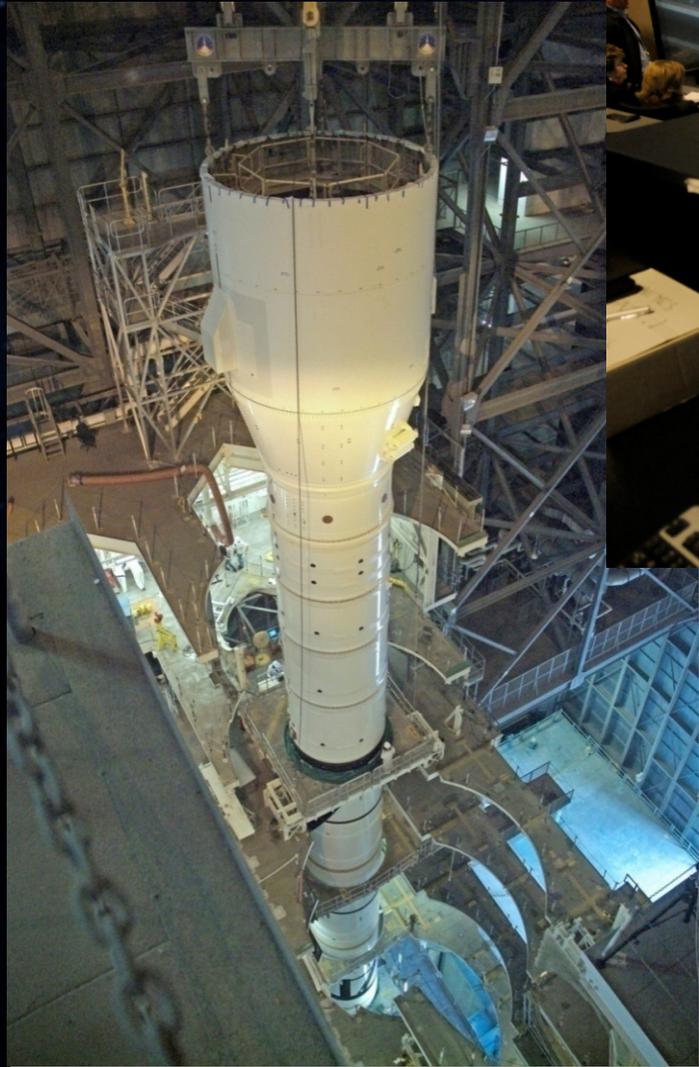


Establishing and Fixing Requirements Early

- ◆ **Why is it advantageous to do this?**
- ◆ **How well are we doing it?**
- ◆ **What can be done to make it better?**
- ◆ **What could any project—not just Ares—learn from doing this?**

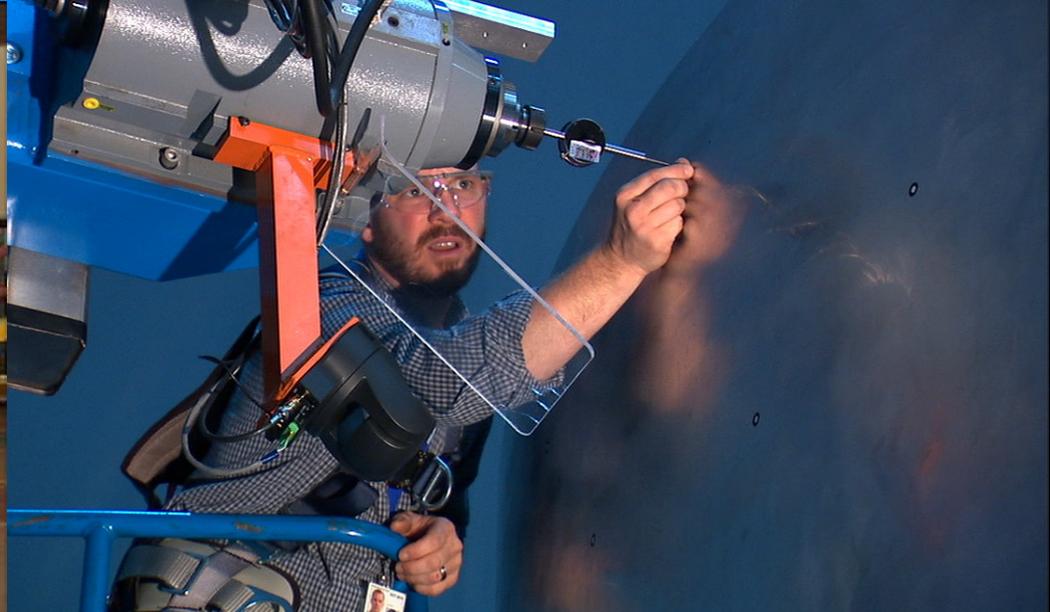


NASA Vehicle Integration Activities



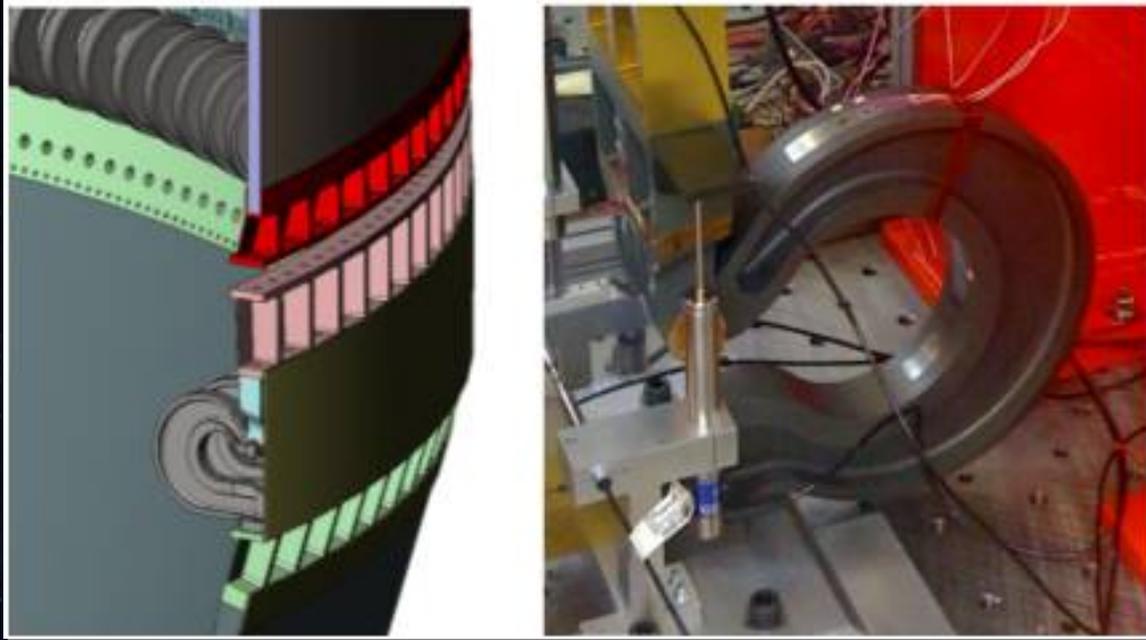


Hands-on Experience / Making the Agency a “Smart Buyer”





Anticipating Problems





Knowledge Management / Capture

EXPLORATION SYSTEMS
 Risk and Knowledge Management

Moon, Mars, and Beyond...

Risk and Knowledge Management: Welcome Bart Leahy | ICE Home | Help | Site Map | My Account

KM Home | Practices | ICE Applications | Sites | Reviews | My Pages

KM Home

KM Home

Welcome to the NASA ESMD Integrated Risk & Knowledge Management Portal
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The Risk and Knowledge Management Portal provides a wide array of resources and services for the ESMD Risk and Knowledge Management community. The portlets to the right expose you to the existing practices designed to generate and share knowledge for reuse. These practices aid in the effort to integrate risk and knowledge management over the life cycle of Constellation and Advanced Capabilities Division programs.

Risk and Knowledge Management Portal Highlights
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- The next ESMD Top Risk Review (TRR) is scheduled for 10 May 2010.
- Check out the March 2010 Systems Engineering Seminar, "Engineering a Successful Mission: Lessons from the Lunar Reconnaissance Orbiter." [Click here](#) to access the charts.
- Defense Acquisition University. [Program Managers e-Tool Kit](#)
- Process 2.0 Facilitator Training is now ON-LINE. [Click here](#) to access this course.
- The ESMD Top Risk List, dated 21 October 2009, is located [here](#).
- Courseware for the USAF Alternatives Analysis (AoA) Course is available in our wiki.
- CAIB Meeting Minutes have been uploaded to Windchill and may be found [here](#).
- Check out the latest KBR: "[Micrometeoroid and Orbital Debris -- Unclear and Present Danger](#)"
- Check out [Riskapedia](#) - A tool that assists you with risk identification, risk analysis, and risk mitigation techniques.
- Visit the [MOD](#) site and check out the [Lessons Learned on Apollo](#).
- **Need Help Finding It?** Fill out the form below and we will help you locate a risk record, document, report, article, and other resources.

Knowledge Based Risks
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KBRs capture risks that have been successfully mitigated in the past that are potentially relevant to many current topics. [Learn more about KBRs.](#)

KBR Spotlight:

"Adequate Instrumentation"
 Michael Garske
 Senior Project Manager, Orbiter Project Office

"Interface Control and Verification"
 Brian Muirhead
 Project Manager for Mars Pathfinder

"Unanticipated Electrical Issues"
 Gary Johnson
 Retired

THOMAS BYRD

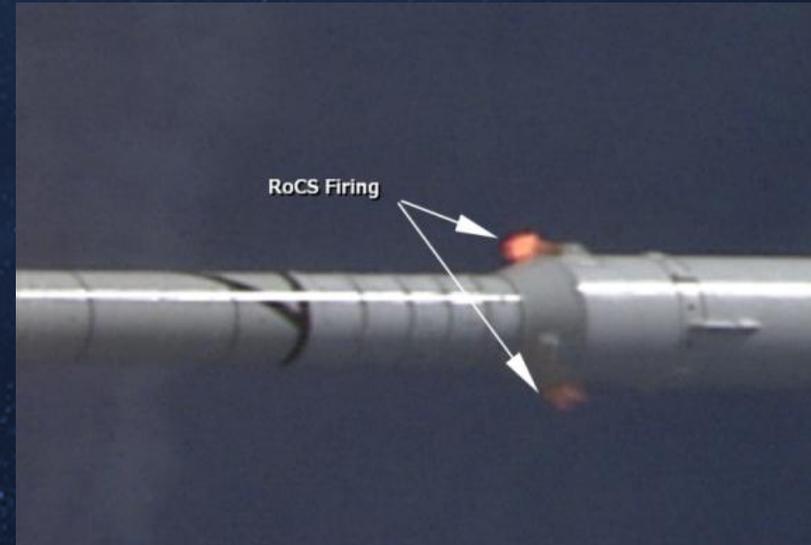


Lean Six Sigma





Design, Development, Processing, Flying, and Controlling New Launch Vehicles





Q & A